JAN

Access DB# 91707

SEARCH REQUEST FORM

Scientific and Technical Information Center

, , , , , , , , , , , , , , , , , , ,			, ,
Requester's Full Name: RG Art Unit: 1651 Phone	Momen	Examiner # : 69630	Date: 4//16/0.3
Art Unit: 1651 Phone	Number 30 8-07	32 Serial Number: <u>09</u>	1883,586
Mail Box and Bldg/Room Location	n: <u>///30/</u> Res	ults Format Preferred (circle):	PAPER DISK E-MAIL
If more than one search is subm	//D/(
If more than one search is submitted, please prioritize searches in order of need.			
Please provide a detailed statement of the Include the elected species or structures, I utility of the invention. Define any terms known Please attach a copy of the cover	search topic, and describe keywords, synonyms, acro- that may have a special m	as specifically as possible the subj nyms, and registry numbers, and co eaning. Give examples or relevant	ect matter to be searched.
Inventors (please provide full names):		•	
		,	
Earliest Priority Filing Date:			
For Sequence Searches Only Please inclu	de all pertinent information (operent, child, divisional, or issued na	tent numbers) along with the
appropriate serial number.		Parama, un rotottas, or todaca pu	tent numbers/_utong_with the
-3	J. J.	71	
•		· ·	
		Jan Dela Reference Li Biotechnology & Ch CM1 1E07 – 703 jan.delaval@u	brarian emical Library -308-4498
		,	
and the state of t		•	
		•	
******	*****	**********	*****
STAFF USE ONLY	Type of Search	Vendors and cost whe	re annlicable
Searcher:	NA Sequence (#)		
Searcher Phone #: 4458		•	
	AA Sequence (#)	Dialog	
Searcher Location:	Structure (#)	Questel/Orbit	
Date Searcher Picked Up: 5 1412	Bibliographic	Dr.Link	<u> </u>
Date Completed: 5 4 3	Litigation	Lexis/Nexis	
Searcher Prep & Review Time:	Fulltext	Sequence Systems	
Clerical Prep Time:	Patent Family	WWW/Internet	
Online Time: ν 5 0	Other	Other (

7

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

FILE 'HOME' ENTERED AT 09:05:49 ON 14 APR 2003

=> ca

THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE Some commands only work in certain files. For example, the EXPAND command can only be used to look at the index in a file which has an index. Enter "HELP COMMANDS" at an arrow prompt (=>) for a list of commands which can be used in this file.

=> file ca COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 0.21 0.21

FULL-ESTIMATED-COST-

FILE 'CA' ENTERED AT 09:06:03 ON 14 APR 2003 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 10 Apr 2003 VOL 138 ISS 16 FILE LAST UPDATED: 10 Apr 2003 (20030410/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> e giri brij/au GIRI BANDLA S/AU E1 3 GIRI BHOOPANDER/AU E2 3 0 --> GIRI BRIJ/AU E3 E4 7 GIRI BRIJ P/AU 3 GIRI BRIJ PAL/AU E5 GIRI C/AU E6 6 10 GIRI C C/AU E7 GIRI C P/AU E8 11 3 GIRI CHANDANA/AU E9 E10 2 GIRI CHANDRAKANT/AU 7 GIRI CHANDRAKANT P/AU E11 GIRI CHANDRAKANT PURUSHOTTAM/AU E12

=> s e4 or e5

10 "GIRI BRIJ P"/AU OR "GIRI BRIJ PAL"/AU

=> d ti 1-10

- L1 ANSWER 1 OF 10 CA COPYRIGHT 2003 ACS
- TI Single molecule detection of enzymes using enhanced chemiluminescence from 1,2-dioxetanes and water-soluble, water-insoluble or partially-water soluble polymers
- L1 ANSWER 2 OF 10 CA COPYRIGHT 2003 ACS
- TI Novel stabilized formulations for chemiluminescent assays
- L1 ANSWER 3 OF 10 CA COPYRIGHT 2003 ACS
- TI Recovery and removal of mercury from effluent
- L1 ANSWER 4 OF 10 CA COPYRIGHT 2003 ACS
- TI Preparation of chemiluminescent 1,2-dioxetane derivatives containing phosphoryloxyphenyl moiety
- L1 ANSWER 5 OF 10 CA COPYRIGHT 2003 ACS
- TI Spacer independent intramolecular triplet energy transfer in diketones
- L1 --- ANSWER-6 OF-10 -- CA COPYRIGHT-2003-ACS
 - TI A method for direct in vivo measurement of drug concentrations from a single deuterium NMR spectrum
 - L1 ANSWER 7 OF 10 CA COPYRIGHT 2003 ACS
 - TI Divergent photochemistry of 2,4-di-tert-butylacetophenone and -benzophenone
 - L1 ANSWER 8 OF 10 CA COPYRIGHT 2003 ACS
 - TI Chemical and enzymatic triggering of 1,2-dioxetanes. 1: aryl esterase-catalyzed chemiluminescence from a naphthyl acetate-substituted dioxetane
 - L1 ANSWER 9 OF 10 CA COPYRIGHT 2003 ACS
 - TI Photochemistry of meta-substituted and para-substituted aromatic polycarbonyl compounds
 - L1 ANSWER 10 OF 10 CA COPYRIGHT 2003 ACS
 - TI Novel photoreversible cyclization of acyl-substituted 2,4,6-triisopropylbenzophenones

=> d bib ab 1 2 4 8

- L1 ANSWER 1 OF 10 CA COPYRIGHT 2003 ACS
- AN 136:147113 CA
- TI Single molecule detection of enzymes using enhanced chemiluminescence from 1,2-dioxetanes and water-soluble, water-insoluble or partially-water soluble polymers
- IN Giri, Brij P.
- PA USA
- SO U.S. Pat. Appl. Publ., 19 pp. CODEN: USXXCO
- DT Patent
- LA English
- FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE
PI US 2002013250 A1 20020131 US 2001-883586 20010618

PRAI US 2000-212883P P 20000617

OS MARPAT 136:147113

```
1,2-dioxetane; a polymeric enhancer which is either an ammonium or
       phosphonium salt of a polyvinylbenzyl chloride; and an aq. enzyme diluent
       or stabilizer comprising a metal halide, alc., amine-based salt, or blood
       or plant protein. The system is efficacious for single mol. detection of
       enzymes such as alk. phosphatase, .beta.-galactosidase, and
       cholinesterase. Thus, chemiluminescence detn. of alk. phosphatase using
       [(4-methoxy)-4-(3-phosporyloxy-4-chlorophenyl)] signo [1,2-dioxetane-3,3-
       tricyclo[7.3.1.02,7]tridec-2,7-ene] disodium salt and
       polyvinylbenzyltrioctylphosphonium chloride was demonstrated.
       ANSWER 2 OF 10 CA COPYRIGHT 2003 ACS
  L1
  AN
       135:149612 CA
  ΤI
       Novel stabilized formulations for chemiluminescent assays
  IN
       Giri, Brij Pal
  PA
       USA
  SO
       PCT Int. Appl., 43 pp.
       CODEN: PIXXD2
 DT
       Patent
 LΑ
       English
 FAN.CNT 1
                                            APPLICATION NO. DATE
       PATENT NO.
                       KIND DATE
      (WO_2001055446) A1 —20010802 WO 2001-US2779 20010126
-PI
           W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
               CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
               HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
               LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
               SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU,
               ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
           RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
              DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
            ---BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
      (US 2001046688)
                                           US 2001-770592
                       A1
                              20011129
                                                              20010126
                                           EP 2001-906739
                        A1
                              20021106
                                                              20010126
              AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
              IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
 PRAI US 2000-178626P P WO-2001-US2779 W
                              20000128
                              20010126
       A substrate having an extended shelf life for chemiluminescent detection
 AB
       and assaying is useful with enzyme-based probes as well as for
       immunoassays, DNA or RNA or protein detection and blotting. The substrate
       is a mixt. of (a) a chemiluminescent compd., (b) an oxidant, (c) a
       stabilizer and (d) a buffer. The substrate may further include a
       chemiluminescent enhancer and a solubilizer. That substrate may be in an
       org. solvent or may be aq. based. Figures, shows varying concns., in
       femtograms, of peroxidase enzyme and was plotted against intensity.
               THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE.CNT 1
               ALL CITATIONS AVAILABLE IN THE RE FORMAT
      ANSWER 4 OF 10
                      CA COPYRIGHT 2003 ACS
 L1
 AN
       132:207956 CA
       Preparation of chemiluminescent 1,2-dioxetane derivatives containing
 TI
       phosphoryloxyphenyl moiety
 IN
      Giri, Brij P.
 PA
      USA
 SO
       PCT Int. Appl., 69 pp.
       CODEN: PIXXD2
 DT
       Patent
 LA
      English
 FAN.CNT 1
       PATENT NO.
                       KIND DATE
                                           APPLICATION NO. DATE
                        ____
                             -----
                                             -----
     (WO 2000014092
                        A1
                             20000316
                                            WO 1999-US20590 19990908
```

A chemiluminescent 1,2-dioxetane includes an enzyme-triggerable stable

AB

```
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,
             DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,
             JP, KE, KG, KP, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO,
             NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA,
             UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
             ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,
             CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     CA 2342979
                       AA
                            20000316
                                           CA 1999-2342979 19990908
                            20000327
                                           AU 1999-59130
                                                             19990908
     AU 9959130
                       A1
                            20010704
                                           EP 1999-946804
                                                             19990908
     EP 1112274
                       A1
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
     US 6461876
                      B1
                            20021008
                                           US 2000-643063
                                                             20000821
PRAI US 1998-99693P
                       Ρ
                            19980908
                            19990908
     WO 1999-US20590
                       W
os
     MARPAT 132:207956
     The title compds. I [(a) R1, R2 are each, individually, an active site or
AB
     when fused together form an active site, and R3 and R4 are each,
     individually, an active site or when fused together form an active site or
     (b) R1 has at least two hetero atoms with active site and R3 and R4 are
     inactive and R2 active], useful as chemiluminescent compds. in assays of
     enzymes (no data), are prepd. These 1,2-dioxetanes have electron donating
     or withdrawing groups at the four-membered peroxide ring, thus, the
     1,2-dioxetane ring hereof is affected by the added electronic charge.
RE.CNT 6
              THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
     ANSWER 8 OF 10 CA COPYRIGHT 2003 ACS
L1
     107:129703 CA
AN
ΤI
     Chemical and enzymatic triggering of 1,2-dioxetanes. 1: aryl
     esterase-catalyzed chemiluminescence from a naphthyl acetate-substituted
     dioxetane
     Schaap, A. Paul; Handley, Richard S.; Giri, Brij P.
ΑU
     Dep. Chem., Wayne State Univ., Detroit, MI, 48202, USA
CS
     Tetrahedron Letters (1987), 28(9), 935-8
SO
     CODEN: TELEAY; ISSN: 0040-4039
DT
     Journal
LA
     English
     A thermally stable 1,2-dioxetane bearing a naphthyl acetate group was
AB
     enzymically cleaved in aq. buffer to generate chemiluminescence at ambient
     temp.
=> d ind 1 2 4 8
     ANSWER 1 OF 10 CA COPYRIGHT 2003 ACS
T<sub>1</sub>1
IC
     ICM C12S009-00
     ICS C11D003-00
     510392000
NCL
     7-1 (Enzymes)
CC
     phosphatase chemiluminescence detn dioxetane polyvinylbenzyltrioctylphosph
ST
     onium chloride
     Alcohols, analysis
IT
     Halides
     RL: ARU (Analytical role, unclassified); ANST (Analytical study)
        (enzyme stabilizer; single mol. detection of enzymes using enhanced
        chemiluminescence from 1,2-dioxetanes and water-sol., water-insol. or
        partially-water sol. polymers)
IT
     Proteins
     RL: ARU (Analytical role, unclassified); ANST (Analytical study)
        (of blood or plant, enzyme stabilizer; single mol. detection of enzymes
        using enhanced chemiluminescence from 1,2-dioxetanes and water-sol.,
        water-insol. or partially-water sol. polymers)
```

```
IT
     Amines, analysis
     RL: ARU (Analytical role, unclassified); ANST (Analytical study)
        (salts, enzyme stabilizer; single mol. detection of enzymes using
        enhanced chemiluminescence from 1,2-dioxetanes and water-sol.,
        water-insol. or partially-water sol. polymers)
IT
     Chemiluminescence spectroscopy
        (single mol. detection of enzymes using enhanced chemiluminescence from
        1,2-dioxetanes and water-sol., water-insol. or partially-water sol.
        polymers)
ΙT
     Polymers, analysis
     RL: ARU (Analytical role, unclassified); ANST (Analytical study)
        (trialkylammonium- or trialkylphosphonium; single mol. detection of
        enzymes using enhanced chemiluminescence from 1,2-dioxetanes and
        water-sol., water-insol. or partially-water sol. polymers)
ΙT
     56-81-5, Glycerol, analysis
                                   64-17-5, Ethanol, analysis
     Isopropyl alcohol, analysis
                                   71-23-8, Propyl alcohol, analysis
                                                                       71-36-3,
     Butyl alcohol, analysis 75-65-0, tert-Butyl alcohol, analysis
            78-83-1, Isobutyl alcohol, analysis 78-92-2, sec-Butyl alcohol
     102-71-6, Triethanolamine, analysis
                                          107-21-1, Ethylene glycol, analysis
     109-86-4, Ethylene glycol methyl ether 111-42-2, Diethanolamine,
               124-68-5, 2-Amino-2-methyl-1-propanol
                                                        7447-40-7, Potassium
     chloride, analysis 7646-85-7, Zinc chloride, analysis
                                                               7647-14-5,
     Sodium chloride, analysis
                                7786-30-3, Magnesium chloride, analysis
   -RL: ARU-(Analytical role, unclassified); -ANST (Analytical study)
        (enzyme stabilizer; single mol. detection of enzymes using enhanced
        chemiluminescence from 1,2-dioxetanes and water-sol., water-insol. or
        partially-water sol. polymers)
                                             9031-11-2, .beta.-Galactosidase
IT
     9001-08-5, Cholinesterase
                                9001-78-9
     RL: ANT (Analyte); ANST (Analytical study)
        (single mol. detection of enzymes using enhanced chemiluminescence from
        1,2-dioxetanes and water-sol., water-insol. or partially-water sol.
        polymers)
IT
     6788-84-7D, 1,2-Dioxetane, derivs.
                                          260791-04-6
     RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
        (single mol. detection of enzymes using enhanced chemiluminescence from
        1,2-dioxetanes and water-sol., water-insol. or partially-water sol.
        polymers)
     72852-29-0, Polyvinylbenzyltributylammonium chloride
                                                            77519-21-2
IT
                   151346-38-2 393869-24-4
     151346-37-1
     RL: ARU (Analytical role, unclassified); ANST (Analytical study)
        (single mol. detection of enzymes using enhanced chemiluminescence from
        1,2-dioxetanes and water-sol., water-insol. or partially-water sol.
        polymers)
Ll
     ANSWER 2 OF 10 CA COPYRIGHT 2003 ACS
IC
     ICM C12Q001-46
     ICS C12Q001-00; C12Q001-26; C12Q001-32; G01N033-53
CC
     9-16 (Biochemical Methods)
ST
     stabilized formulation chemiluminescent assay
IT
     Functional groups
        (Anthryl; novel stabilized formulations for chemiluminescent assays)
IT
     Functional groups
        (Naphthyl; novel stabilized formulations for chemiluminescent assays)
IT
     Phosphonium compounds
     Quaternary ammonium compounds, analysis
     RL: ARU (Analytical role, unclassified); ANST (Analytical study)
        (Polymeric; novel stabilized formulations for chemiluminescent assays)
IT
     Luminescence, chemiluminescence
        (enhancer; novel stabilized formulations for chemiluminescent assays)
ΙT
     Pigments, biological
     RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
        (luciferins; novel stabilized formulations for chemiluminescent assays)
IT
     Body fluid
     Buffers
```

```
Chemiluminescent substances
     Concentration (condition)
     Cypridina
     Immunoassay
     Mixtures
     Oxidizing agents
     Phenyl group
     Pholas dactylus
     Photinus pyralis
     Solubilizers
     Stabilizing agents
     Surfactants
     Test kits
     Volume
     Нq
        (novel stabilized formulations for chemiluminescent assays)
IT
     Proteins, general, analysis
     RL: ANT (Analyte); ANST (Analytical study)
        (novel stabilized formulations for chemiluminescent assays)
IT
     Aromatic compounds
     RL: ARG-(Analytical reagent use); ANST (Analytical study); USES (Uses)
        (novel stabilized formulations for chemiluminescent assays)
     Enzymes, uses
ΙT
     RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
        (novel stabilized formulations for chemiluminescent assays)
IT
     RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
        (novel stabilized formulations for chemiluminescent assays)
IT
     Alcohols, analysis
     RL: ARU (Analytical role, unclassified); ANST (Analytical study)
        (novel stabilized formulations for chemiluminescent assays)
IT
     Carbohydrates, analysis
     RL: ARU (Analytical role, unclassified); ANST (Analytical study)
        (novel stabilized formulations for chemiluminescent assays)
IT
     Macromolecular compounds
     RL: ARU (Analytical role, unclassified); ANST (Analytical study)
        (novel stabilized formulations for chemiluminescent assays)
IT
     Polymers, analysis
     RL: ARU (Analytical role, unclassified); ANST (Analytical study)
        (novel stabilized formulations for chemiluminescent assays)
IT
     Polyoxyalkylenes, analysis
     RL: ARU (Analytical role, unclassified); ANST (Analytical study)
        (novel stabilized formulations for chemiluminescent assays)
ΙT
     Solvents
        (org.; novel stabilized formulations for chemiluminescent assays)
TΤ
     Albumins, analysis
     RL: ARU (Analytical role, unclassified); ANST (Analytical study)
        (serum, bovine; novel stabilized formulations for chemiluminescent
        assays)
IT
     197156-36-8
     RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
        (N-Alkyl, and ester or thioester; novel stabilized formulations for
        chemiluminescent assays)
IT
     9003-99-0, Peroxidase
     RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
        (horseradish; novel stabilized formulations for chemiluminescent
        assays)
     50-99-7, D-Glucose, analysis 57-88-5, Cholesterol, analysis 289-95-2D,
TT
     Pyrimidine, derivs.
     RL: ANT (Analyte); ANST (Analytical study)
        (novel stabilized formulations for chemiluminescent assays)
```

Chemiluminescence spectroscopy

```
IT
    14915-07-2, Peroxide
    RL: ANT (Analyte); ARU (Analytical role, unclassified); FMU (Formation,
    unclassified); ANST (Analytical study); FORM (Formation, nonpreparative)
        (novel stabilized formulations for chemiluminescent assays)
    87-51-4, Indole-3-acetic acid, uses 87-51-4D, Indole-3-acetic acid,
IT
    ester or thioester 87-66-1, Pyrogallol 92-04-6, 2-Chloro-4-
                   92-69-3, p-Phenylphenol 92-81-9, Acridane
                                                                92-84-2D,
    phenylphenol
    Phenothiazine, N-alkyl, or substituted 95-77-2, 3,4-Dichlorophenol
                                 101-53-1, 4-Benzylphenol 106-41-2,
    98-54-4, 4-tert-Butylphenol
    p-Bromophenol 106-44-5, 4-Methylphenol, uses 106-48-9, p-Chlorophenol
    106-50-3, p-Phenylenediamine, uses 108-46-3, Resorcinol, uses
    108-73-6, Phloroglucinol 108-95-2, Phenol, uses 110-86-1D, Pyridine,
    derivs., uses
                   120-83-2, 2,4-Dichlorophenol 124-43-6, Urea hydrogen
               135-19-3, 2-Naphthol, uses 135-67-1D, Phenoxazine, N-alkyl,
    peroxide
                   135-67-1D, Phenoxazine, derivs. 288-88-0,
    or substituted
    1H-1,2,4-Triazole 289-80-5D, Pyridazine, derivs.
                                                       459-32-5,
    p-Fluorocinnamic acid 500-85-6, Phenolindophenol
                                                        501-97-3
                                                                   521-31-3,
              540-38-5, p-Iodophenol 569-77-7, Purpurogallin 573-97-7
    583-17-5, o-Hydroxycinnamic acid 588-30-7, m-Hydroxycinnamic acid
    831-82-3, 4-Phenoxyphenol 936-02-7, o-Hydroxybenzoic acid hydrazide
    939-69-5, 2-Cyano-6-hydroxybenzothiazole 956-48-9, 2,6-
    Dichlorophenolindophenol 1207-72-3, 10-Methylphenothiazine
                                                                  1634-82-8
    1689-82-3, 4-(Phenylazo)phenol
                                   1904-58-1, o-Aminobenzoic acid hydrazide
   ---1912-48-7- N-Methylindole-3-acetic acid 1912-48-7D-N-Methylindole-3-
    acetic acid, esters 1965-09-9 2393-18-2, p-Aminocinnamic acid
    2591-17-5, Firefly luciferin 3558-83-6, 4-(4'-Hydroxyphenyl)benzophenone
    3682-14-2, Isoluminol
                           3964-56-5, 4-Bromo-2-chlorophenol
                                                              4217-54-3
                         5341-58-2, 2-Hydroxy-3-naphthoic acid hydrazide
    4217-54-3D, derivs.
    5818-06-4, m-Hydroxybenzoic acid hydrazide 6245-87-0D, Indoaniline,
             6949-73-1, 2-Hydroxy-9-fluorenone 6949-73-1D,
    2-Hydroxy-9-fluorenone, substituted 7400-08-0, p-Hydroxycinnamic acid
    7722-84-1, Hydrogen peroxide, uses 7732-34-5
                                                    7732-46-9
                                                              9001-05-2,
    Catalase 9001-37-0, Glucose oxidase 9007-43-6, cytochrome C, uses
    9028-76-6, Cholesterol oxidase 13599-84-3, 6-Hydroxybenzothiazole
    15231-91-1, 6-Bromonaphth-2-ol
                                    15630-89-4 16009-13-5, Protohemin
    16239-18-2
               19656-33-8
                             19656-33-8D, derivs.
                                                    20115-09-7,
    Dehydroluciferin
                     22493-86-3 22493-86-3D, derivs.
                                                         25415-88-7D,
    Hydrazide, Aminoarylcyclic diacyl, or salts or hydroxyaryl cyclic diacyl
                34314-06-2, Tetramethylbenzidine
                                                  36705-74-5
                                                               36705-75-6
    26278-79-5
                                  46817-52-1, p-Phenylphenol phosphate
    39349-73-0D, Perborate, salts
    54827-17-7, 3,3',5,5'-Tetramethylbenzidine 59152-02-2 80567-65-3,
    2,6-Dihydroxybenzothiazole
                               91974-05-9
                                            92681-33-9
                                                        106050-81-1,
    6-Hydroxybenzoxazole 106050-81-1D, 6-Hydroxybenzoxazole, substituted
                  108672-79-3
                              137015-67-9 150787-21-6
                                                           150787-21-6D,
    108672-78-2
             161006-09-3 172834-35-4
                                         352209-94-0
                                                      352209-94-0D, derivs.
    derivs.
                           352209-96-2
                                         352209-96-2D, esters
                                                               352209-97-3
    352209-95-1D, derivs.
    RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
        (novel stabilized formulations for chemiluminescent assays)
                    60-00-4, EDTA, analysis
                                            65-46-3D, Cytidine, nucleotides
IT
    57-09-0, CTAB
    67-42-5, Ethylenebis (oxyethylenenitrilo) tetraacetic acid
                                                              67-43-6,
    Diethylenetriaminepentaacetic acid
                                       67-68-5, Dimethyl sulfoxide, analysis
    68-12-2, Dimethylformamide, analysis 85-61-0, Coenzyme A, analysis
    109-99-9, Tetrahydrofuran, analysis
                                         112-02-7, Cetyltrimethylammonium
               123-91-1, Dioxane, analysis
                                           124-03-8,
    Cetyldimethylethylammonium bromide 151-41-7, Lauryl sulfate
                                                                   538-71-6,
    Domiphen bromide 1405-87-4, Bacitracin
                                             9002-92-0, Brij 35
                                                                   9002-93-1,
                  9004-87-9, Polyoxyethylene isooctylphenyl ether
    Triton X-100
    9005-64-5, Tween 20
                         9005-65-6, Tween 80
                                               9005-66-7, Tween 40
    9005-67-8, Tween 60 9005-70-3, Tween 85
                                              9035-81-8, Trypsin inhibitor
    9036-19-5, triton x-114
                            9042-14-2, Dextran sulfate 12619-70-4,
                 14000-31-8, Diphosphate
                                            15827-60-8, DEQUEST 2060S
    Cyclodextrin
    25322-68-3, Polyethyleneglycol
                                   92046-34-9
                                                104335-52-6
    RL: ARU (Analytical role, unclassified); ANST (Analytical study)
        (novel stabilized formulations for chemiluminescent assays)
```

```
IT
     9016-45-9, triton n-101
     RL: ARU (Analytical role, unclassified); ANST (Analytical study)
        (straight and branched; novel stabilized formulations for
        chemiluminescent assays)
L1
     ANSWER 4 OF 10 CA COPYRIGHT 2003 ACS
IC
     ICM C07F009-06
         C07D321-00; C07C043-166; C07C043-168; C07C043-178; C07F007-08;
          C07K017-02; G01N033-533
     29-7 (Organometallic and Organometalloidal Compounds)
CC
     Section cross-reference(s): 7, 28
     oxetane phosphoryloxyphenyl moiety contg prepn chemiluminescent;
ST
     chemiluminescent phosphoryloxyphenyl moiety contg dioxetane prepn; enzyme
     assay chemiluminescent phosphoryloxyphenyl moiety contg dioxetane
IT
     Enzymes, biological studies
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (detection; prepn. of chemiluminescent dioxetane derivs. for enzyme
        detection)
     Luminescence, chemiluminescence
TT
        (prepn. of chemiluminescent dioxetane derivs. contg.
        phosphoryloxyphenyl moiety)
                    260790-98-5P
                                   260790-99-6P
                                                 260791-00-2P
                                                                260791-01-3P
IT
     260790-97-4P
                   260791-03-5P
                                   260791-04-6P
                                                 260791-05-7P
     260791-02-4P
     RL:-BAC-(Biological-activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (prepn. of chemiluminescent dioxetane derivs. contg.
        phosphoryloxyphenyl moiety)
                                   75-89-8, 2,2,2-Trifluoroethanol
                                                                      94-41-7,
TТ
     67-56-1, Methanol, reactions
     Benzalacetophenone 99-06-9, 3-Hydroxybenzoic acid, reactions
                                                                    108-94-1,
     Cyclohexanone, reactions 122-99-6, 2-Phenoxyethanol
                                                            123-72-8,
     Butyraldehyde
                    700-58-3, Adamantan-2-one
                                               10025-87-3, Phosphorus
                 18162-48-6, tert-Butyldimethylsilyl chloride
                                                                30525-89-4,
     oxychloride
     Paraformaldehyde
                        34113-69-4
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (prepn. of chemiluminescent dioxetane derivs. contg.
        phosphoryloxyphenyl moiety)
                             16643-41-7P 19438-10-9P
                                                          20098-14-0P
TT
     2544-00-5P 2682-98-6P
                  21328-39-2P 24133-20-8P 69392-50-3P
                                                           99287-98-6P
     20098-17-3P
                  166272-81-7P
                                 179633-60-4P
                                                 179633-61-5P
                                                                260791-06-8P
     120687-94-7P
                                  260791-09-1P
                                                 260791-10-4P
                                                                260791-11-5P
     260791-07-9P
                   260791-08-0P
     260791-12-6P, Tricyclo[3.3.1.13,7]dec-4-en-2-one 260791-13-7P
                   260791-15-9P 260791-16-0P
                                                 260791-17-1P
                                                                260791-18-2P
     260791-14-8P
                                  260791-21-7P
                                                 260791-22-8P
                                                                260791-23-9P
     260791-19-3P
                    260791-20-6P
     260791-24-0P
                    260791-25-1P
                                  260791-26-2P
                                                 260791-27-3P
                                                                260791-28-4P
                                  260791-31-9P 260791-32-0P
                                                                260791-33-1P
     260791-29-5P
                   260791-30-8P
     260791-34-2P
                  260791-35-3P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (prepn. of chemiluminescent dioxetane derivs. contg.
        phosphoryloxyphenyl moiety)
     ANSWER 8 OF 10 CA COPYRIGHT 2003 ACS
L1
CC
     7-3 (Enzymes)
     aryl esterase dioxetane hydrolysis chemiluminescence
ST
ΙT
     Luminescence, chemi-
        (aryl esterase- and base-catalyzed, from dioxetanes)
IT
     9032-73-9, Aryl esterase
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (dioxetane hydrolysis by, chemiluminescence from)
                 110347-76-7
TT
     110347-75-6
     RL: FORM (Formation, nonpreparative)
        (formation of, in dioxetane enzymic hydrolysis by aryl esterase)
IT
     110347-70-1
                 110347-71-2 110371-06-7
```